

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

1. (Amended) A contact a three dimensional memory device comprising:
a conductive film;
an opening formed through a plurality of film stacks of a three dimensional memory device, said opening having a top and bottom wherein said bottom is formed on said conductive film, said opening having a first sidewall and second sidewall wherein said first sidewall is opposite of said second sidewall, and wherein said first sidewall has a stair step configuration wherein said first sidewall is closer to said second sidewall at said bottom of said opening than at the top of said opening; and
a [continuous] conductor formed on said stair step configuration said first sidewall of said opening and on said bottom of said opening on said conductive film.
4. (Amended) The contact of claim 1 wherein said first sidewall has a slope (height:width) of less than 2:1.
5. (Amended) A contact in a three dimensional memory device comprising:
a contact opening formed through a plurality of film stacks of a three-dimensional memory, said contact having a bottom on an interconnection, said contact opening having a first and second laterally opposite sidewalls, wherein said first sidewall comprises:
a first vertical side extending up from said bottom;

a first horizontal surface extending from said first vertical side to a second vertical side, said second vertical side further spaced from said second sidewall than said first vertical side;

a second horizontal surface extending from said second vertical side to a third vertical side wherein said third vertical side is spaced further from said second sidewall than said second vertical side; and

a [continuous] conductor formed on said first sidewall and on said interconnection in the bottom of said contact opening.

7. (Amended) A contact of a three dimensional memory device comprising:
a first and a second film stack of a three dimensional memory device said [first film stack] having a first part and a second part separated by a first gap, said first film stack having a top conductive film;

[a] said second film stack formed on said first film stack, said second film stack having a first part and a second part separated by a second gap formed over said first gap so as to expose said top conductive film of said first film stack, said second film stack having a top conductive film; and

a [continuous] conductive contact film formed on said top conductive film on said second film stack and on said top conductive film of said first film stack in said second gap.

9. (Amended) A contact comprising:
a first film stack having a first part and a second part separated by a first gap, said first film stack having a top conductive film[;The contact of claim 7] wherein said first film stack comprises a top P+ silicon film formed on a silicide film which is formed on a P+ silicon film which is formed on a P- silicon film which is formed on a antifuse layer[.];

a second film stack formed on said first film stack, said second film stack having a first part and a second part separated by a second gap formed over said first gap so as to expose said top conductive film of said first film stack, said second film stack having a top conductive film; and

a continuous conductive contact film formed on said top conductive film on said second film stack and on said top conductive film of said first film stack in said second gap.

11. (Amended) [The contact of claim 7] A contact comprising:

a first film stack having a first part and a second part separated by a first gap, said first film stack having a top conductive film;

a second film stack formed on said first film stack, said second film stack having a first part and a second part separated by a second gap formed over said first gap so as to expose said top conductive film of said first film stack, said second film stack having a top conductive film; and

a continuous conductive contact film formed on said top conductive film on said second film stack and on said top conductive film of said first film stack in said second gap wherein said first film stack comprises a top N+ silicon film formed on a silicide film which is formed on a N+ silicon film which is formed on a N- silicon film which is formed on a antifuse film.

13. (Amended) [The contact of claim 7] A contact comprising:

a first film stack having a first part and a second part separated by a first gap, said first film stack having a top conductive film;

a second film stack formed on said first film stack, said second film stack having a first part and a second part separated by a second gap formed over said first gap so as to expose said top conductive film of said first film stack, said second film stack having a top conductive film; and

a continuous conductive contact film formed on said top conductive film on said second film stack and on said top conductive film of said first film stack in said second gap wherein said continuous conductive contact film comprises a top P+ silicon film formed on a silicide film.

14. (Amended) [The contact of claim 7] A contact comprising:

a first film stack having a first part and a second part separated by a first gap, said first film stack having a top conductive film;

a second film stack formed on said first film stack, said second film stack having a first part and a second part separated by a second gap formed over said first gap so as to expose said top conductive film of said first film stack, said second film stack having a top conductive film; and

a continuous conductive contact film formed on said top conductive film on said second film stack and on said top conductive film of said first film stack in said second gap wherein said continuous conductive contact film comprises a top N+ silicon film formed on a silicide film.

28. (Amended) [The contact of claim 5] A contact comprising:

a contact opening having a bottom on an interconnection, said contact opening having a first and second laterally opposite sidewalls, wherein said first sidewall comprises:

a first vertical side extending up from said bottom;

a first horizontal surface extending from said first vertical side to a second vertical side, said second vertical side further spaced from said second sidewall than said first vertical plane;

a second horizontal surface extending from said second vertical side to a third vertical side wherein said third vertical side is spaced further from said second sidewall than said second vertical side; and

a continuous conductor formed on said first sidewall and on said interconnection in the bottom of said contact opening wherein said continuous conductor comprises a top p+ silicon film formed on a silicide film.

30. (Amended) [The contact of claim 5] A contact comprising:
a contact opening having a bottom on an interconnection, said contact opening having a first and second laterally opposite sidewalls, wherein said first sidewall comprises:
a first vertical side extending up from said bottom;
a first horizontal surface extending from said first vertical side to a second vertical side, said second vertical side further spaced from said second sidewall than said first vertical side;
a second horizontal surface extending from said second vertical side to a third vertical side wherein said third vertical side is spaced further from said second sidewall than said second vertical side; and
a continuous conductor formed on said first sidewall and on said interconnection in the bottom of said contact opening wherein said continuous conductor comprises a top n+ silicon film formed on a silicide film.